WHAT IS EBS ?

EBS stands for Elastic Block Store.

It provides block storage for use with EC2 instances.

It is easy to use and scalable.

VOLUME is the digital storage unit you connect to your EC2 instance for extra data storage.

SSD stands for (Solid State Drive) Volumes.

There are two Subtypes :

i)General Purpose SSD(gp2) : It is for balance of cost and speed.

ii)Provisioned IOPS SSD(io1) : It is for tasks that need consistent high performance.

HDD stands for (Hard Disk Drive) Volumes.

There are three Subtypes :

i)Throughput Optimized(st1) : It is good for tasks that need a lot of data moving quickly.

ii)Cold HDD(sc1) : It is for things you don't use often but want to keep.

iii)Magnetic(standard) : It is the cheapest option for tasks where speed doesn't matter much.

#####HOW TO ATTACH NEW VOLUME TO AN EC2 INSTANCE ,CREATE PARTITION,AND THEN MOUNT IT.#####

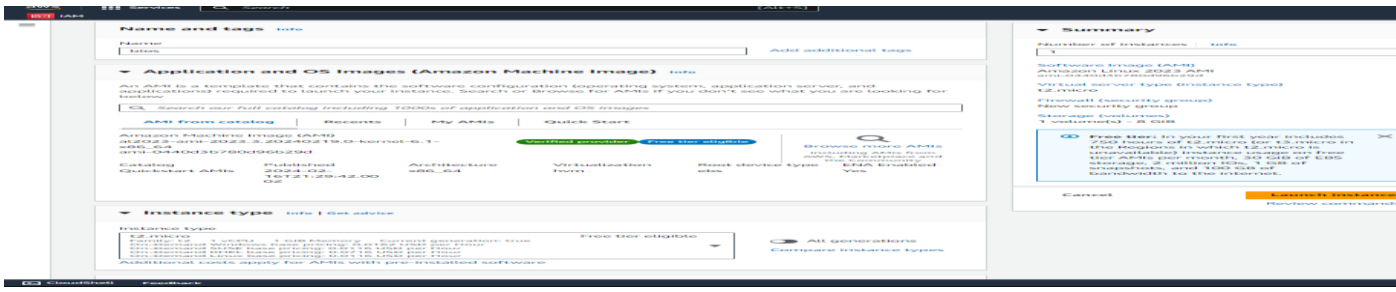
1)To Create Volume and Instance and attach volume to created Instance.

Step I : In aws console,go to EC2 in Elastic Block Storage and click on Volumes.

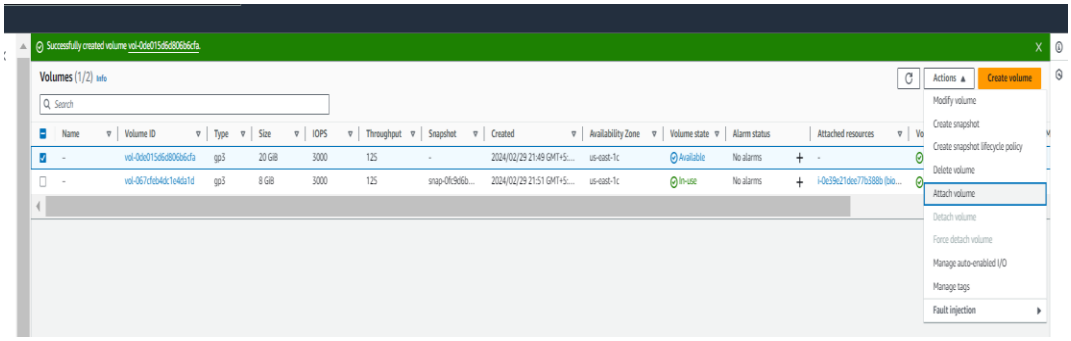
Step II : Then click on create volume .

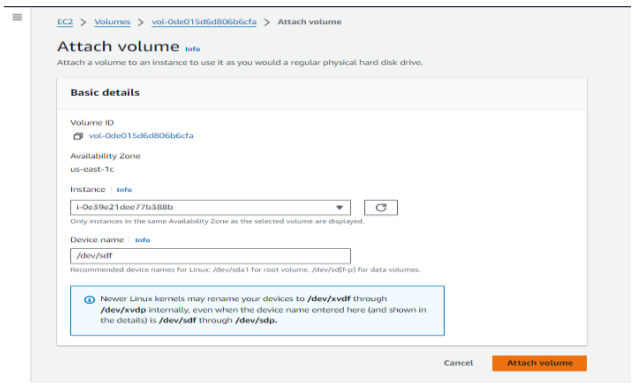
Step III : Choose the type, size, IOPS, Throughput, Availability zone and click to create Volume.

Step IV : then Go to Instances, create instance make sure Availability zone of Volume and Instance is Same.



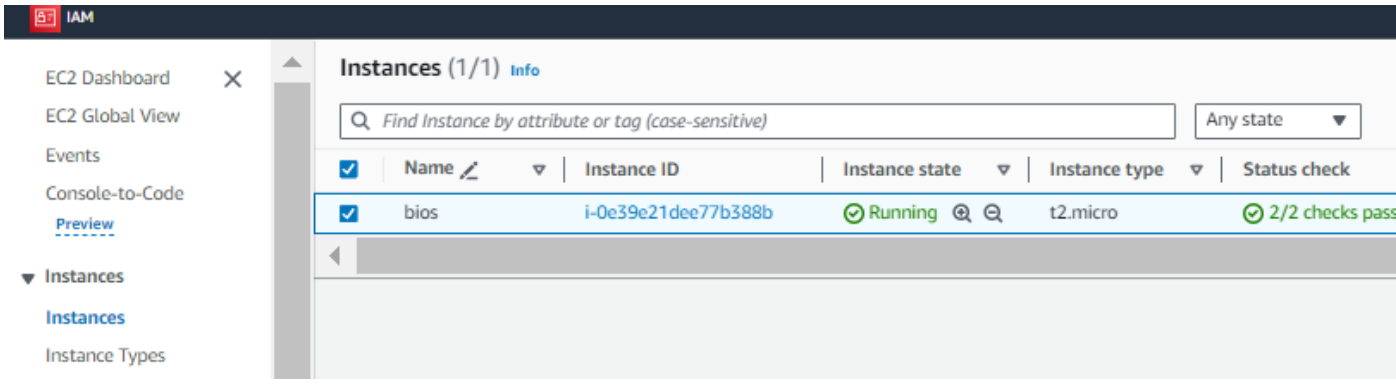
Step V : Then Go to in Volume Section, Click on Actions and select Attach Volume Option.





Step VI : After doing that, in volume make sure selected volume shows “in use” .

Step VII : Then go to Instances, select that instance which we attach to volume. Select it and connect.



2)Create Partition , Assign Filesystem and mount it.

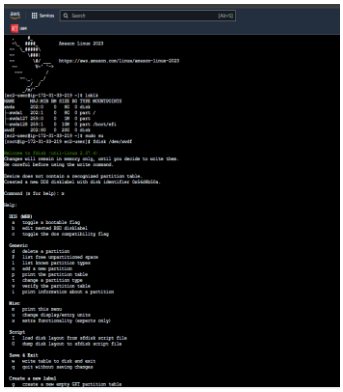
Step VIII : After Connecting, in Terminal give the lsblk command to view the storage devices in the system.

Step IX : Now, you will notice the extra 20 GB of Storage is Added here.

Step X : Change the user using “sudo su” command.

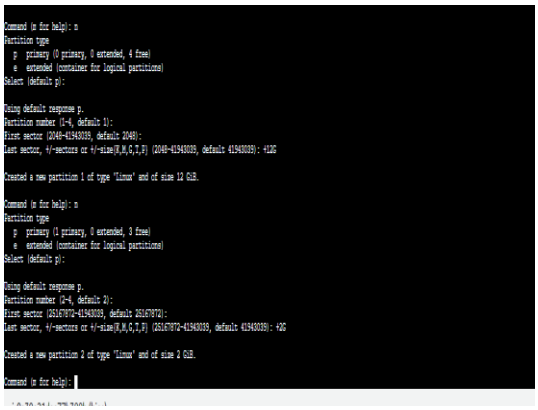
Step XI : to create the Partition, hit the command “fdisk /dev/xvdf”.

Step XII : for help type “m” .

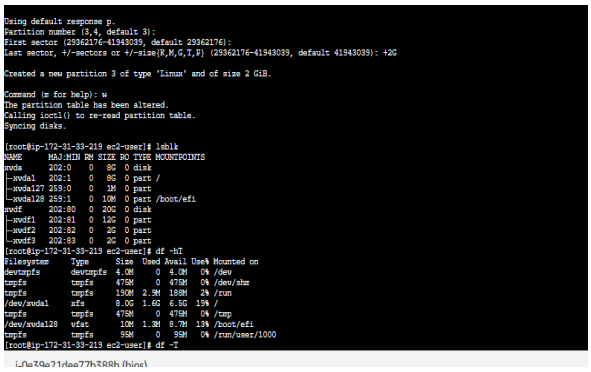


Step XIII : Press n “for new partition”, select Partition type(primary/Extended),Partition Number(First Sector skip always)and give the size.

There is 64 total Partitions: 61 partitions for extended and 3 partitions for primary.



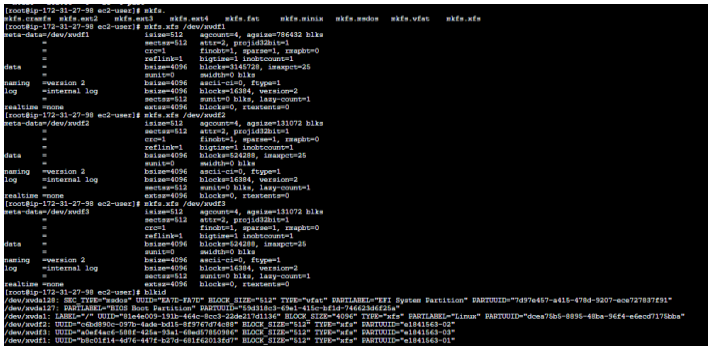
Step XIV : press “w” for save and exit, check the partition using lsblk.



Step XV : then use “mkfs. tab tab” , it displays the list of available filesystem type.

Step XVI : to give the xfs filesystem on partition ,hit the command “mkfs.xfs /dev/xvdf”.

Step XVII : After creating filesystem, to check filesystem hit the command blkid.



Step XVIII : for temporary mount the partition to /mnt, we use mount command “mount /dev/xvdf1 /mnt”. Then, check the mount point using “lsblk”.

Step XIX : then,go to mount directory using cd,create files in /mnt using “touch” command.

Step XX : for unmount the partition, give “umount /dev/xvdf1”,check the volume is unmounted with “lsblk”

Step XXI : for permanently mount the partition,

i)open the “/etc/fstab” using vim editor.

ii)Add “/dev/xvdf1 /mnt xfs defaults 0 0 ’’. It denotes the device,mount point ,filesystem type,mount options,dump,and filesystem check order .

Step XXII : save it and exit.

Step XXIII : to refresh use “mount -a”.check using “lsblk”.

Step XXIV : verify the created files in /mnt use “ls /mnt”